STORM WATER SEWER IMPROVEMENTS
FOR
FEIST CORPORATE OFFICE
LOT 10, BLOCK 2, MEDITERRANEAN PLAZA
AN ADDITION TO
WICHITA, SEDGWICK COUNTY, KANSAS
CITY OF WICHITA PRIV. PROJ. NO. 1064 PPS(607861)
MIKE LINDEBAK, P.E., CITY ENGINEER
NOVEMBER 2000

GENERAL NOTES:

1. ALL ELEVATIONS SHOWN ARE BASED ON CITY OF WICHITA DATUM(MEAN SEA LEVEL ELEV.-1187.4=CITY DATUM).

2. CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF FORTY-EIGHT(48)HOURS TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS.

KANSAS ONE CALL 687-2470

THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:

CABLEVISION	262-4270 OR 263-2061
KG&E-GAS	263-7511
KG&E-ELECTRIC	264-1141
PEOPLES NATURAL GAS	942-8811
SOUTHWESTERN BELL TELEPHONE	1-571-2611
CITY OF WICHITA WATER DEPARTMENT	268-4908

THE CONTRACTOR SHALL NOTIFY PIPELINE COMPANIES AT LEAST 24 HOURS IN ADVANCE OF ANY WORK BEING PERFORMED ACROSS AND/OR ADJACENT TO PIPELINES.

3. THE CONTRACTOR SHALL NOT START WORK ON THE PROJECT UNTIL THE PROJECT INSPECTOR IS ASSIGNED TO THE PROJECT AND IS PRESENT ON THE SITE. ANY WORK DONE WITHOUT INSPECTION WILL BE REQUIRED TO BE UNCOVERED FOR INSPECTION.

4. THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS/OR TENANTS OF DEVELOPED PROPERTY DIRECTLY ABUTTING THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF TEN(10)DAYS ADVANCE NOTICE PRIOR TO START OF CONSTRUCTION.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.

6. THE CONTRACTOR SHALL RESTORE ALL DITCHES, SWALES, ROAD SHOULDERS, ENTRANCES AND BANK LINES TO THEIR ORIGINAL SLOPES AND GRADES EXCEPT AS SHOWN OTHERWISE.

7. A SAW CUT OF AT LEAST ONE-HALF THE DEPTH OF EXISTING SURFACE COURSES OR ONE-FOURTH THE DEPTH OF THE EXISTING TOTAL PAVEMENT THICKNESS SHALL BE PROVIDED AT LOCATIONS WHERE PROPOSED CONSTRUCTION ABUTS AN EXISTING SURFACE COURSE OR PAVEMENT FOR WHICH PARTIAL REMOVAL OF THAT SURFACE OR PAVEMENT IS REQUIRED, EXCEPT WHEN SUCH SAW CUTS ARE WITHIN THREE(3)FEET OF AN EXISTING JOINT. THE LIMITS OR REMOVAL SHALL BE EXTENDED TO THE EXISTING JOINT. REMOVAL AND REPLACEMENT OF EXISTING PAVEMENT SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE CITY OF WICHITA STANDARD SPECIFICATIONS.

8. PAVEMENT REMOVAL AND/OR REPLACEMENT WILL BE MEASURED AND PAID FOR ON THE LINEAL FOOT BASIS AS MEASURED ALONG THE CENTERLINE OF THE WATER LINE REGARDLESS OF WIDTH, PAVEMENT TYPE AND/OR PAVEMENT THICKNESS. MINIMUM LIMITS OF SUCH PAVEMENT REMOVAL AND REPLACEMENT SHALL BE ONE FOOT BEYOND THE LIMITS OF THE EXCAVATION MADE FOR THE WATER LINE OR THE STRUCTURE, EXCEPT WHEN SUCH SAW CUTS ARE WITHIN THREE(3) FEET OF AN EXISTING JOINT, THE LIMITS OF REMOVAL SHALL BE EXTENDED TO THE EXISTING JOINT. REMOVAL AND REPLACEMENT OF EXISTING PAVEMENT SHALL BE CONFORM TO THE APPLICABLE SECTIONS OF THE CITY OF WICHITA STANDARD SPECIFICATIONS.

9. INTERURBAN TRAFFIC GENERATED OUTSIDE THE PROJECT AREA SHALL NOT BE CARRIED THROUGH CONSTRUCTION. LOCAL RESIDENTIAL TRAFFIC GENERATED WITHIN THE PROJECT AREA SHALL BE CARRIED THROUGH CONSTRUCTION AS FURTHER PROMULGATED BY PROJECT SPECIAL PROVISIONS.

10. UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR OR UNLESS THE PLANS SPECIFICALLY IDENTIFY A UTILITY TO BE ADJUSTED BY ITS OWNER DURING CONSTRUCTION. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.

11. RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND SITE LOCATION. LOCATIONS, THAT IN THE OPINION OF THE ENGINEER, WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED.

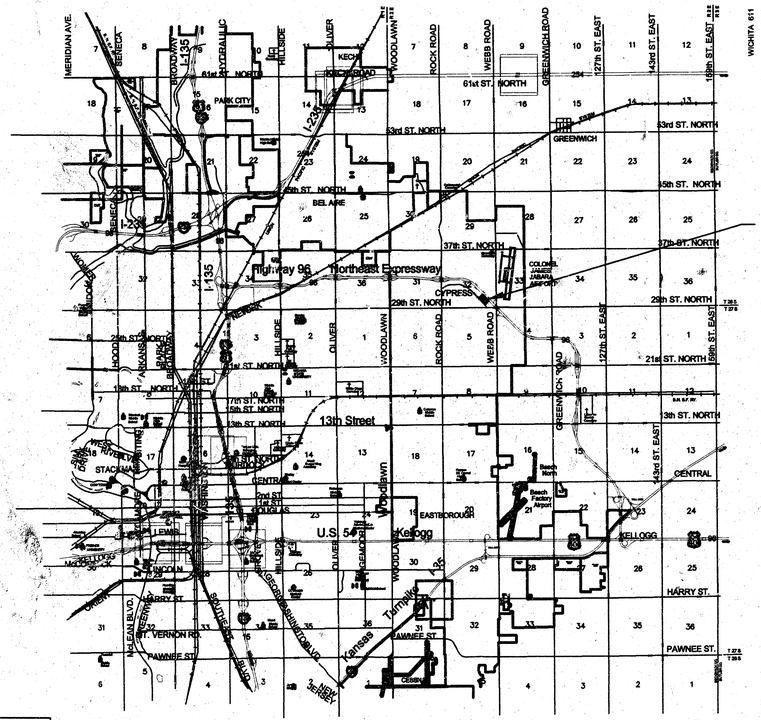
ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOODPLAIN WOULD REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STAES OR WETLANDS IS SUBJECT TO U.S. CORPS OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILE BEYOND APPROVED CONSTRUCTION LIMITS WOULD REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.

12. PROPERTIES WITHIN THE PROJECT LIMITS MAY HAVE UNDERGROUND SPRINKLER SYSTEMS IN THE PUBLIC RIGHT-OF-WAY WHICH CONFLICT WITH NEW CONSTRUCTION. CONTRACTOR WILL BE REQUIRED TO REMOVE SUCH IMPROVEMENTS SHOULD THEY NOT BE REMOVED BY THEIR OWNER AT THE TIME OF CONSTRUCTION OF THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SALVAGE ALL SPRINKLER HEADS AND/OR VALVES AND GIVE SUCH MATERIAL TO THEIR OWNER. PORTIONS OF UNDERGROUND SPRINKLER SYSTEMS NOT IN CONFLICT WITH NEW CONSTRUCTION SHALL BE PROTECTED FROM DAMAGE AND SHALL REMAIN IN PLACE. ALL WORK IN CONNECTION WITH UNDERGROUND SPRINKLER SYSTEMS SHALL BE CONSIDERED AS SUBSIDIARY TO THE CONTRACT PAY ITEMS OF WORK.

13. THE CONTRACTOR MUST EXAMINE THE CONSTRUCTION SITE PRIOR TO BIDDING AND BE SATISFIED AS TO THE WORK SHOWN FOR COMPLETION. AFTER BIDS HAVE BEEN RECEIVED, THE CONTRACTOR SHALL NOT ASSERT THAT THERE WAS A MISUNDERSTANDING OF THE QUANTITIES OF WORK OR OF THE NATURE FOR THE WORK TO BE COMPLETED.

HORIZONTAL CONTROL TABLE

CP #1	N-8496.42 E-3792.80	Found #5 Bar MKEC, SW Side of Lot 10, Block 2, Mediterranean Plaza.
CP #2	N-8482.11 E-3920.50	Found #4 Bar MKEC, SW Corner of Lot 10, Block 2, Mediterranean Plaza.
CP #3	N-8926.52 E-4022.36	Found #4 Bar MKEC, East Corner of Lot 10, Block 2, Mediterranean Plaza.



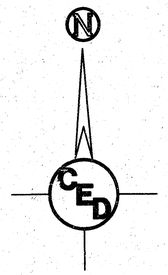
LOCATION MAP

PROJECT LOCATED IN SW. 1/4 of Sec. 32, T26S, R2E, WICHITA, SEDGWICK COUNTY, KANSAS

INDEX OF SHEETS

1. Title Sheet & General Notes
2. Site Plan
3. Plan/Profile
4. Inlet/End Section Details

PROJECT LOCATION



NO SCALE

AS-BUILT
Date: Mitchell & Pruy
Signed: 11/4/01

HAROLD DALE FORAKER LICENSED 10891 KANSAS PROFESSIONAL ENGINEER
11-8-2000

BENCHMARK:
City of Wichita Benchmark disc- At sign base, west side Webb Road 2' West of west edge sidewalk, 50' North of east bound on-ramp to K-96.
Elev = 222.74 (City of Wichita Datum)

BOOKED 10-17-01 MCG D-524

APPROVED AS NOTED
By CITY ENGINEER OF WICHITA

Sanitary Sewers
Storm Sewers VRH 11/8/00
Driveway Approaches
Water Mains
Paving

NOTE TO CONTRACTOR

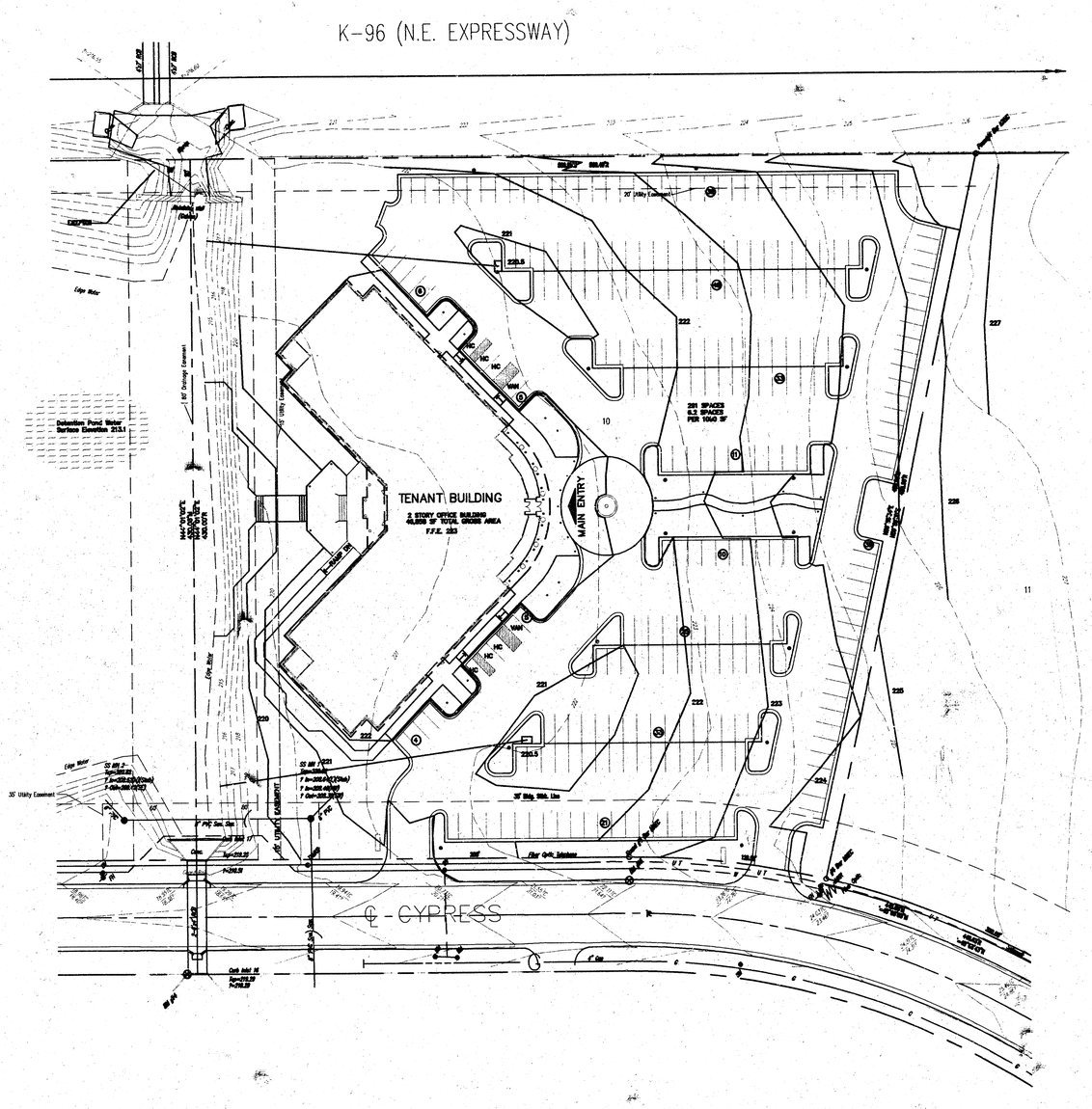
INSPECTION AND TESTING FOR THIS PROJECT IS TO BE PROVIDED BY A LICENSED CONSULTING ENGINEERING FIRM UNDER CONTRACT WITH THE OWNER/DEVELOPER. SAID INSPECTION TO BE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD CONSTRUCTION ENGINEERING PRACTICES AND CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER. NO WORK SHALL BE PERFORMED IN DEDICATED EASEMENTS OR THE PUBLIC RIGHT-OF-WAY BY THE CONTRACTOR WITHOUT SUCH INSPECTION NOR SHALL ANY WORK BE COMMENCED IN DEDICATED EASEMENTS OR PUBLIC RIGHT-OF-WAY WITHOUT WRITTEN AUTHORIZATION BY THE CITY ENGINEER.

C.O.W. PROJ. NO.: 1064 PPS(607861)

CERTIFIED ENGINEERING DESIGN
CED
810 WEST DOUGLAS, SUITE C
WICHITA, KANSAS 67203
PH: (316) 262-8808
FAX: (316) 262-1669

SHEET 1
TOTAL 4

SWS SITE PLAN
FOR
FEIST CORPORATE OFFICE



GRAPHIC SCALE

40 0 20 40 80

(IN FEET)
1 inch = 40 ft.

UTILITIES SHOWN REPRESENT THE BEST INFORMATION AVAILABLE FOR DESIGN. ADDITIONAL UTILITIES MAY BE PRESENT ON THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION, DEPTH, AND SIZE OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGE CAUSED BY THE FAILURE TO DO SO.

— Existing Contour Elevation

228 — Proposed Contour Elevation

HORIZONTAL CONTROL TABLE

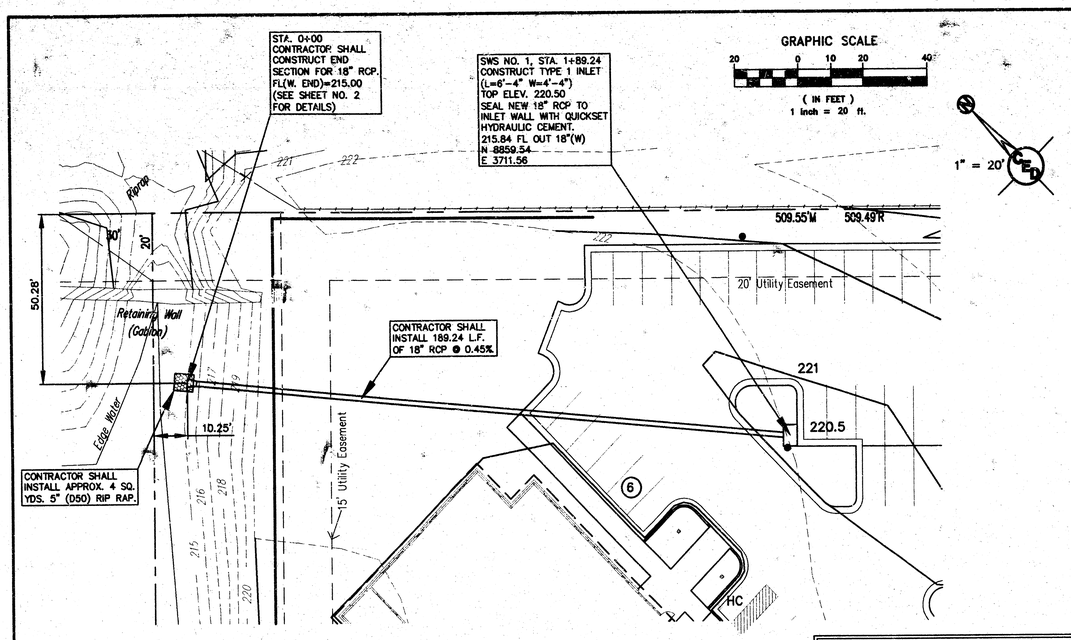
CP #1	N-8496.42 E-3792.80	Found #5 Bar MKEC, SW Side of Lot 10, Block 2, Mediterranean Plaza.
CP #2	N-8482.11 E-3920.50	Found #4 Bar MKEC, SW Corner of Lot 10, Block 2, Mediterranean Plaza.
CP #3	N-8926.52 E-4022.36	Found #4 Bar MKEC, East Corner of Lot 10, Block 2, Mediterranean Plaza.

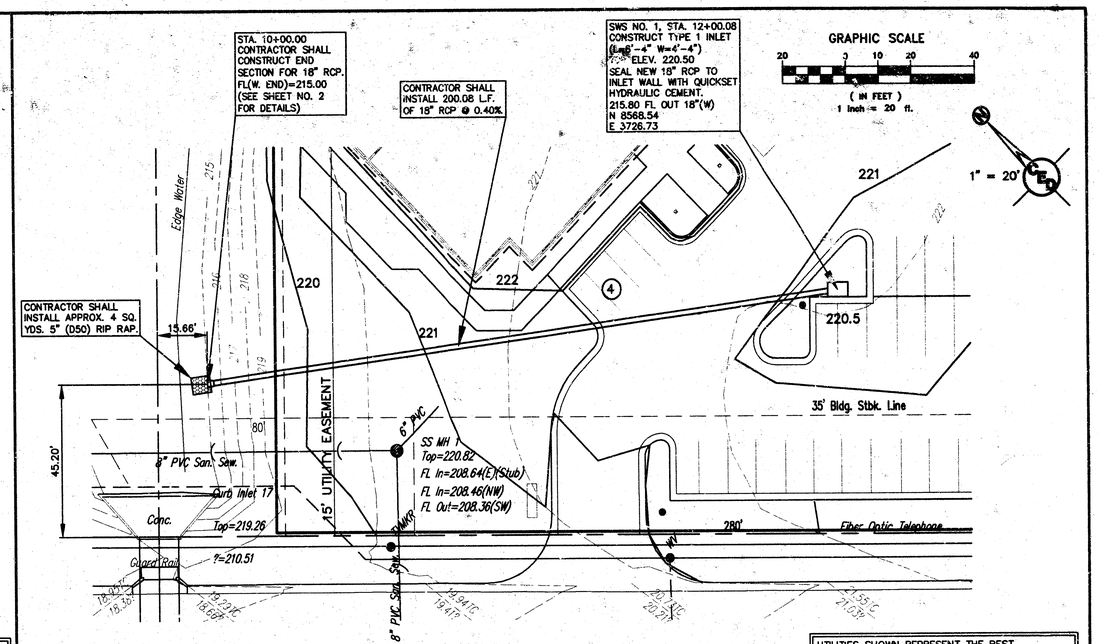
BENCHMARK:
City of Wichita Benchmark disc- At sign base, west side Webb Road 2' West of west edge sidewalk, 50' North of east bound on-ramp to K-96.
Elev = 222.74 (City of Wichita Datum)

SWS SITE PLAN
FEIST CORPORATE OFFICE
WICHITA, KANSAS
CED PROJ. NO.: 2000671

CERTIFIED ENGINEERING DESIGN
810 WEST DOUGLAS, SUITE C
WICHITA, KANSAS 67203
PH.(316)262-8808 FAX.(316)262-1669

DESIGNED: HDF	SCALE: 1"=30'	SHEET 2
DRAWN: CKW	DATE: 11/2000	
CHECKED: HDF	CED FILE: sws1.dwg	TOTAL 4

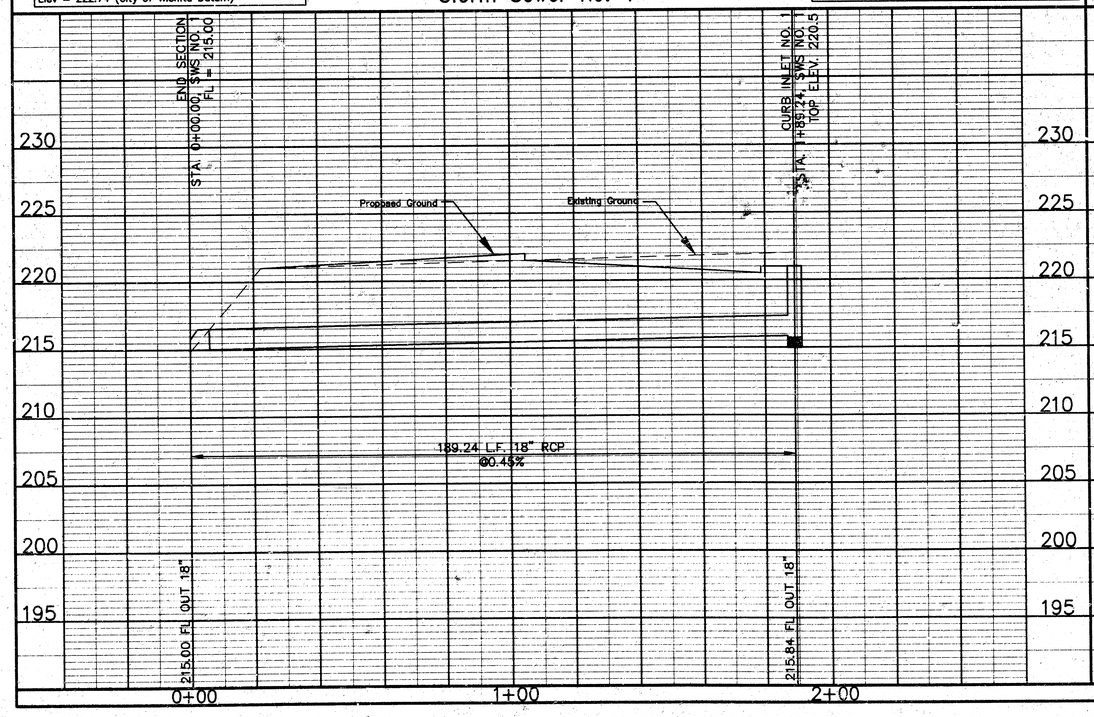




BENCHMARK:
City of Wichita Benchmark disc– At sign base, west side Webb Road 2' West of west edge sidewalk, 50' North of east bound on–ramp to K–96.
Elev = 222.74 (City of Wichita Datum)

UTILITIES SHOWN REPRESENT THE BEST INFORMATION AVAILABLE FOR DESIGN. ADDITIONAL UTILITIES MAY BE PRESENT ON THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION, DEPTH AND SIZE OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGE CAUSED BY THE FAILURE TO DO SO.

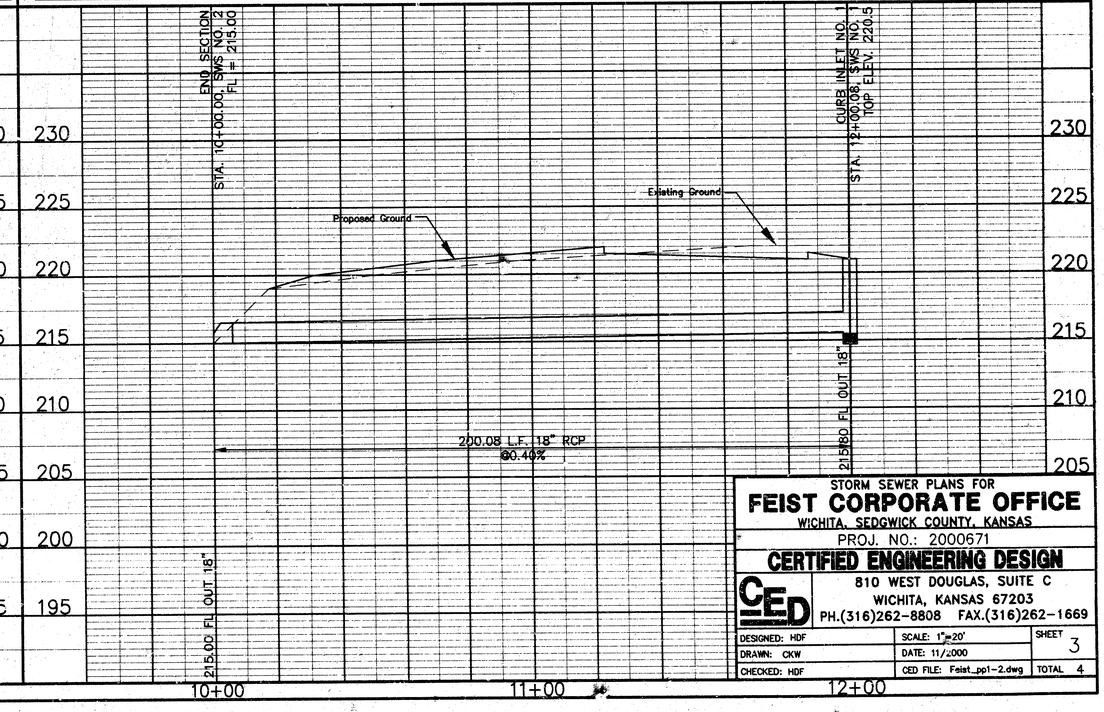
Storm Sewer No. 1



BENCHMARK:
City of Wichita Benchmark disc– At sign base, west side Webb Road 2' West of west edge sidewalk, 50' North of east bound on–ramp to K–96.
Elev = 222.74 (City of Wichita Datum)

UTILITIES SHOWN REPRESENT THE BEST INFORMATION AVAILABLE FOR DESIGN. ADDITIONAL UTILITIES MAY BE PRESENT ON THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION, DEPTH AND SIZE OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGE CAUSED BY THE FAILURE TO DO SO.

Storm Sewer No. 2

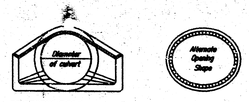


STORM SEWER PLANS FOR
FEIST CORPORATE OFFICE
WICHITA, SEDGWICK COUNTY, KANSAS
PROJ. NO.: 2000671

CERTIFIED ENGINEERING DESIGN
810 WEST DOUGLAS, SUITE C
WICHITA, KANSAS 67203
PH.(316)262–8808 FAX.(316)262–1669

DESIGNED: HDF	SCALE: 1"=20'	SHEET 3
DRAWN: CKW	DATE: 11/2000	
CHECKED: HDF	CED FILE: Feist_pp1–2.dwg	TOTAL 4

FHWA REGION NO.	STATE	PROJECT NO:	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS				



END SECTION (TYPE I) NOMINAL DIMENSIONS

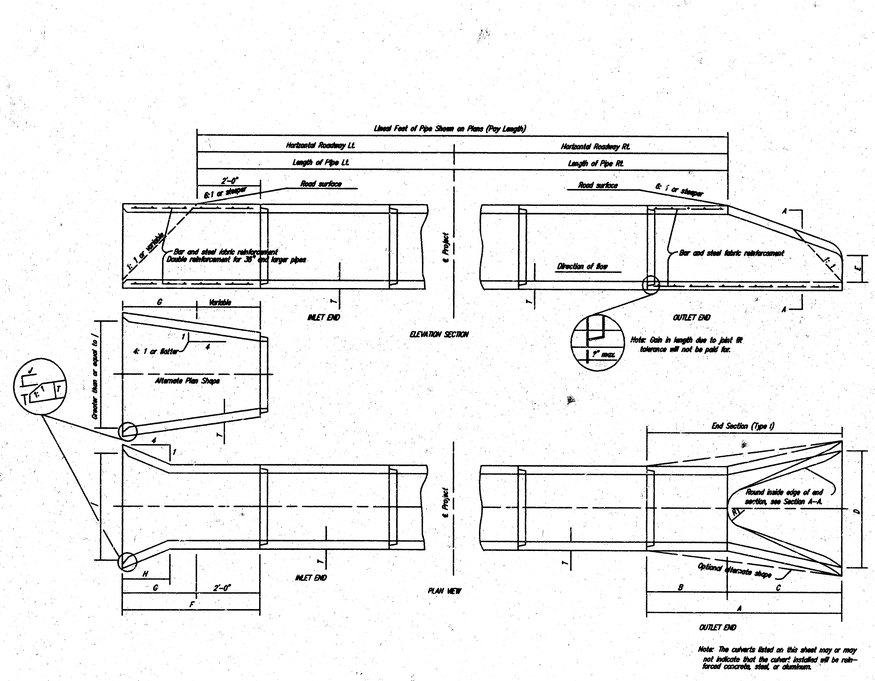
Diam.	A	B	C	D	E	R_1	Slope	T
12"	0'-7½"	0'-7½"	2'-0"	2'-0"	4"	9	3 : 1	7"
15"	0'-7"	1'-10"	2'-3"	2'-6"	5"	11	3 : 1	3½"
18"	0'-7"	1'-10"	2'-3"	3'-0"	6"	13	3 : 1	3½"
21"	0'-11"	2'-0"	3'-7½"	3'-6"	7"	16	3 : 1	3"
24"	0'-10½"	1'-7½"	2'-3"	4'-0"	8"	18	3 : 1	3½"
30"	0'-10½"	2'-1"	3'-3"	5'-0"	10"	23	3 : 1	4"
36"	0'-10½"	2'-10½"	3'-3"	6'-0"	1'-0"	28	3 : 1	4"
42"	0'-2"	2'-11"	3'-3"	6'-6"	1'-0"	33	3 : 1	4½"
48"	0'-2"	2'-11"	4'-0"	7'-0"	1'-0"	38	3 : 1	5"
54"	1'-2½"	2'-10"	5'-0"	7'-6"	1'-3"	43	2.5 : 1	5½"
60"	0'-3"	3'-3"	5'-0"	8'-0"	1'-3"	48	2 : 1	6"
72"	0'-3"	1'-9"	6'-0"	9'-0"	1'-6"	58	1.66 : 1	7"
84"	1'-3½"	1'-6"	7'-0"	10'-0"	1'-9"	68	1.5 : 1	8"

SIDE TAPERED INLET SECTION (TYPE III)-NOMINAL DIMENSIONS

Diam.	Min. Side Area Sq.Ft.	F	G	H	J	K	L	R	T
24"	4.5	2'-3"	2'-3"	1'-3½"	2'-8"	11½"	8"	1'-0"	5"
30"	7.0	4'-3½"	2'-9½"	1'-3½"	3'-4"	2"	10"	1'-3"	3½"
36"	10.1	5'-1"	3'-1"	2'-1½"	4'-0"	2"	1'-0"	1'-6"	4"
42"	13.7	5'-10½"	3'-10½"	2'-3½"	4'-8"	2½"	1'-2"	1'-9"	4½"
48"	17.9	6'-7"	4'-5"	2'-10½"	5'-4"	3"	1'-4"	2'-0"	5"
54"	22.7	8'-1½"	4'-11½"	3'-1½"	6'-0"	3½"	1'-5"	2'-3"	5½"
60"	28.0	7'-8"	5'-8"	3'-4½"	6'-8"	4"	1'-8"	2'-6"	6"
72"	40.3	8'-7"	5'-7"	4'-1½"	8'-0"	5"	2'-0"	3'-0"	7"
84"	54.8	9'-8"	7'-8"	5'-0½"	9'-4"	6"	2'-4"	3'-6"	8"

Dimensions for alternate shapes shall be equal to or greater than those shown in the table, unless otherwise shown.

1 Transition to round pipe.
Paid for as separate Item of End Section, except when structures shall bid on alternates, in that case End Sections, shall be considered in bid items. Drawings Contractors Bid.
Included in per length of pipe.
Minimum waterway area is calculated at the inside of the bevel.



Note: The culverts listed on this sheet may or may not indicate that the culvert installed will be reinforced concrete, steel, or aluminum.

PIPE CULVERT SUMMARY

Station	Location	Type	Size	Cross Grade Elev.	Flow line		Horizontal Roadway		Degree of Skew	Length of Pipe		Lbs.Ft. Pipe	End Section	
					Lt.	Rt.	Lt.	Rt.		Lt.	Rt.		Type I Lt.	Type III Rt.

NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

CONCRETE END SECTIONS

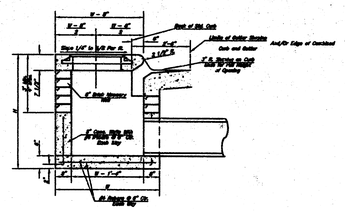
FOR CONCRETE PIPES

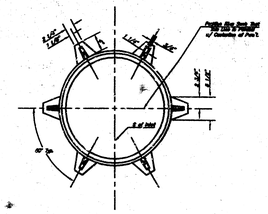
TYPE I & SIDE TAPERED

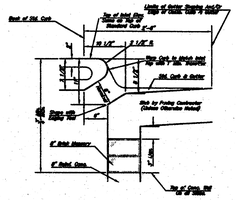
INLET SECTION (TYPE III)

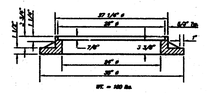
R0662

FHWA APPROVAL	1-6-92	APP'D	James O. Brewer
DESIGNED	DETAILED	QUANTITIES	TRACED BOWSER
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK. SEITZ



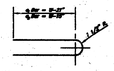


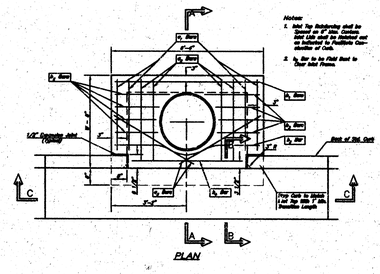


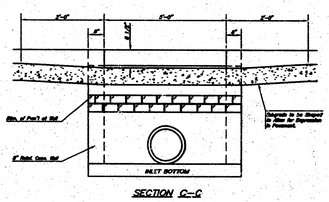


MANHOLE RING AND COVER

Size, Wt. of Shields, Standard Manhole Ring and Other Detail Shall be Same Details as Are Used With Inlet Frame.







STEEL SCHEDULE

BAR	a_1	a_2	a_3	b_1	b_2	b_3	b_4	b_5	b_6	b_7	WT. Lbs.
NUMBER	4	4	2	1	3	5	7	8	1	1	
SIZE	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5	
LENGTH	2'-7"	2'-7"	1'-8"	6'-7"	-	-	-	1'-8"	6'-6"	6'-6"	106
	3'-1"	3'-1"	2'-0"	-	8'-7"	-	-	1'-8"	8'-6"	8'-6"	89
	3'-7"	3'-7"	2'-4"	-	-	9'-7"	-	1'-8"	9'-6"	9'-6"	104
	4'-1"	3'-7"	2'-8"	-	-	-	11'-7"	1'-8"	11'-6"	11'-6"	126
	4'-7"	3'-7"	3'-0"	-	-	-	13'-7"	1'-8"	13'-6"	13'-6"	147
	5'-1"	3'-7"	3'-4"	-	-	-	15'-7"	1'-8"	15'-6"	15'-6"	168

Note: a_3 Bars to be Placed Approx. 3" Below Top of Inlet Cover.

STANDARD CURB INLET PRECAST TOPS

W	Inlet Top Size	Pipe Size	Lbs. Wt. Conc.
6'-4"	5'-4" 6'-4" 7 1/8"	18" & Smaller	4,300
8'-4"	7'-4" 8'-4" 7 1/8"	24" & 30"	5,200
10'-4"	9'-4" 10'-4" 7 1/8"	36" & 42"	6,000
12'-4"	11'-4" 12'-4" 7 1/8"	48" & 54"	6,700
14'-4"	13'-4" 14'-4" 7 1/8"	60" & 66"	8,000

GENERAL NOTES

1. Concrete type to be "modified" on this master quantity to ensure 4" of compacted sand bed width. Concrete type "A" to be used on 3" of compacted sand bed. Concrete used for inlet top shall be type A unless otherwise noted.
2. Contractor shall have the option of manufacturing 8" brick masonry walls between the concrete inlet base and top in lieu bid items 8inF-4" and 8in7-4" or less.
3. Inlet invert shall be shaped with 6 inch mortar sub concrete to provide flow channels and to increase hydraulic efficiency such that inlet will be set identical between an inlet and/or outlet pipes.
4. The ends of all pipes terminated in inlets shall be cut off flush with the inside face of the inlet wall.

Revised – Dec. 21, 1984

THE CITY OF WICHITA

CITY ENGINEER'S OFFICE
CITY HALL – SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 268-4500
(316) 268-4114 FAX

STANDARD TYPE 1 CURB INLET DETAILS
INLET OPENING=6"x10'-0"

M. E. LINDEBAK P.E. – CITY ENGINEER

PROJECT NUMBER	INDEX CODE
000000	

DATE	SHEET 4 OF 4
NOV 00	

60 60 03 08 ᵻᵻ